Amendments to the Claims

1. (Canceled)

2. (Currently Amended) The spacer of claim ~~1~~ 28 wherein the spacer is cylindrical.

3. (Currently Amended) The spacer of claim ~~1~~ 28 wherein the spacer comprises an elongate body.

4. (Currently Amended) The spacer of claim ~~1~~ 28 wherein the spacer is "C" shaped.

5-14. (Canceled)

15. (Currently Amended) The spacer of claim ~~1~~ 28 wherein the shape memory polymeric material is selected from the group consisting of: polylactide, polyglycolide, poly(lactide-co-glycolide), polyurethane, poly(ethylene-co-vinyl acetate), poly(ethylene-co-propylene), poly(ethylene-co-propylene-co-diene), poly(ε-caprolactone), poly(β-hydroxybutyrate), poly(β-hydroxybutyrate-co-hydroxyvalerate), poly(methacrylate), poly(methyl methylacrylate), poly(acrylate), and mixtures, copolymers and blends thereof.

16-27. (Canceled)

28. (New) An expandable spacer for implantation between opposing endplates of adjacent vertebrae, said spacer comprising:

a body composed of a shape memory polymeric material and comprising peripheral sidewall, said body provided in a first configuration sized to overlay a first portion of a vertebral endplate wherein said body upon absorption of thermal energy expands to a second configuration sized to overlay a second portion of the vertebral endplate, said second portion having a greater area than the first portion.

29. (New) The spacer of claim 28 wherein the body is sized in the second configuration to extend across the entire surface of the vertebral endplate.

30. (New) The spacer of claim 29 wherein the body is sized to overlay a portion of a one of: a cervical, a thoracic, a lumbar, or a sacral vertebra.

31. (New) The spacer of claim 29 wherein the peripheral wall contacts the apophyseal ring of the vertebral endplate.

32. (New) The spacer of claim 28 wherein the body in the second configuration has a diameter selected to be between about 6 mm and about 50 mm.

33. (New) The spacer of claim 32 wherein the body in the second configuration has a diameter selected to be between about 10 mm and about 16 mm.

34. (New) The spacer of claim 33 wherein the body in the second configuration is sized to permit bilateral placement of two spacers in the same disc space.

35. (New) The spacer of claim 28 wherein the body in the second configuration is sized to extend across only a portion of the vertebral endplate.

36. (New) The spacer of claim 28 wherein the body in the second configuration is sized to permit bilateral placement of two spacers in the same disc space.

37. (New) The spacer of claim 28 wherein the peripheral wall defines an internal cavity.

38. (New) The spacer of claim 37 wherein the peripheral wall comprise at least one opening extending into the interior cavity.

39. (New) The spacer of claim 37 comprising an osteogenic material disposed in the interior cavity.

40. (New) The spacer of claim 39 wherein the osteogenic material is selected from the group consisting of: a bone morphogenic protein, a recombinant bone morphogenic protein, demineralized bone matrix, and mixtures thereof.

41. (New) The spacer of claim 39 wherein the osteogenic material includes a carrier.

42. (New) The spacer of claim 28 wherein the body in the first configuration has a first cross-sectional area and the body in the second configuration has a second cross-sectional area greater than the first cross-sectional area.

43. (New) The spacer of claim 42 wherein the body is provided in an original configuration having a original cross-sectional area that is greater than the first cross-sectional area.

44. (New) The spacer of claim 43 wherein the original cross-sectional area is greater than the second cross-sectional area.

45. (New) The spacer of claim 43 wherein the body is provided in an original configuration having an original height and the body in the second configuration has a second height less than the original height.

46. (New) The spacer of claim 28 wherein the body in the second configuration mating conforms to the opposing endplates of the adjacent vertebrae.

47. (New) The spacer of claim 28 wherein the first configuration the peripheral sidewall is folded back on to itself.

48. (New) The spacer of claim 47 wherein the peripheral sidewall in the second configuration is unfolded.

49. (New) The spacer of claim 47 wherein the peripheral sidewall in the first configuration resembles a pleated sheet structure.

50. (New) The spacer of claim 28 wherein the body in the first configuration is compressed into a flattened configuration.

51. (New) The spacer of claim 28 wherein the body in the first configuration defines a spirally wound cylinder.

52. (New) The spacer of claim 51 wherein the body in the first configuration has a first cross-sectional area and in the second configuration has a second cross-sectional area greater than the first cross-sectional area.

53. (New) The spacer of claim 51 wherein the body in the second configuration is unwound.

54. (New) The spacer of claim 51 wherein the body in the second configuration is substantially cylindrical.

55. (New) The spacer of claim 51 wherein the body in the second configuration is elongate.

56. (New) The spacer of claim 51 wherein the body in the second configuration is "C" shaped.

57. (New) The spacer of claim 28 wherein the body exhibits a compressive modulus of between about 2 MPa and about 30 MPa.

58. (New) The spacer of claim 57 wherein the body exhibits a compressive modulus of between about 8 MPa and about 15 MPa.

59. (New) An expandable spacer for implantation into a disc space between adjacent vertebrae, said spacer comprising:

a deformable body formed to include a shape memory polymeric material, said body comprising: a first bearing surface, an opposite, second bearing surface, and a peripheral sidewall positioned therebetween and defining an interior cavity,

an osteogenic material disposed in the interior cavity, and

wherein said body is provided in a first configuration and expands to a second configuration upon absorption of thermal or radiation energy.

60. (New) The spacer of claim 59 wherein the peripheral sidewall comprises at least one opening extending into the internal cavity.

61. (New) The spacer of claim 59 wherein the shape memory polymeric material is selected from the group consisting of: polylactide, polyglycolide, poly(lactide-co-glycolide), polyurethane, poly(ethylene-co-vinyl acetate), poly(ethylene-co-propylene), poly(ethylene-co-propylene-co-diene), poly(ε-caprolactone), poly(β-hydroxybutyrate), poly(β-hydroxybutyrate-co-hydroxyvalerate), poly(methacrylate), poly(methyl methylacrylate), poly(acrylate), and mixtures, copolymers and blends thereof.

62. (New) The spacer of claim 59 wherein the body in the first configuration is sized to sized to overlay a first portion of a vertebral endplate.

63. (New) The spacer of claim 59 wherein the body in the second configuration is sized to configuration to extend across the entire surface of the vertebral endplate.

64. (New) The spacer of claim 59 wherein the peripheral wall contacts the apophyseal ring of the vertebral endplate.

65. (New) The spacer of claim 59 wherein the body in the second configuration has a diameter selected to be between about 6 mm and about 50 mm.

66. (New) The spacer of claim 65 wherein the body in the second configuration has a diameter selected to be between about 10 mm and about 16 mm.

67. (New) The spacer of claim 59 wherein the body has a height sized to be inserted into the disc space between adjacent vertebrae.

68. (New) The spacer of claim 67 wherein the body has a height selected to be between about 3 and about 20 mm

69. (New) The spacer of claim 68 wherein the body has a height selected to be between about 4 and about 14 mm.

70. (New) The spacer of claim 59 wherein the body exhibits a compressive modulus sufficient to withstand the biomechanical load exerted by the spinal column.

71. (New) The spacer of claim 59 wherein the body exhibits a compressive modulus of between about 2 MPa and about 30 MPa.

72. (New) The spacer of claim 59 wherein the body exhibits a compressive modulus of between about 8 MPa and about 15 MPa.

73. (New) The spacer of claim 59 wherein the body in the first configuration has a first cross-sectional area and the body in the second configuration has a second cross-sectional area greater than the first cross-sectional area.

74. (New) The spacer of claim 73 wherein the body is provided in an original configuration having a original cross-sectional area that is greater than the first cross-sectional area.

75. (New) The spacer of claim 74 wherein the original cross-sectional area is greater than the second cross-sectional area.

76. (New) The spacer of claim 74 wherein the spacer in the original configuration has a first height and the spacer in the second configuration has a second height different from the first height.

77. (New) The spacer of claim 59 wherein the peripheral sidewall in the first configuration the sidewall is folded back on to itself.

78. (New) The spacer of claim 59 wherein the peripheral sidewall in the second configuration is unfolded.

79. (New) The spacer of claim 59 wherein the body in the second configuration is sized to permit bilateral placement of two spacers within the same disc space.

80. (New) A system for treating a spinal defect, said system comprising:

a first expandable spacer including a body composed of a shape memory polymeric material and comprising peripheral sidewall, said body provided in a first configuration sized to overlay a first portion of a vertebral endplate wherein said body upon absorption of energy expands to a second configuration sized to overlay a second portion of the vertebral endplate, said second portion having a greater area than the first portion, and

a second expandable spacer comprising a second body composed of a shape memory polymeric material.

81. (New) The system of claim 80 wherein the first and the second expandable spacers is composed of the same shape memory polymeric material.

82. (New) The system of claim 80 wherein the second expandable spacer is provided in a third configuration and sized substantially the same as the first spacer in the first configuration.

83. (New) The system of claim 82 wherein the second spacer expands to a fourth configuration upon absorption of energy and sized substantially the same as the first spacer in the second configuration.

84. (New) The system of claim 82 wherein the second spacer expands to a fourth configuration upon absorption of energy and sized differently than the first spacer in the second configuration.

85. (New) The system of claim 80 wherein the second expandable spacer is provided in third configuration and sized differently than the first spacer in the first configuration.

86. (New) The system of claim 85 wherein the second spacer expands to a fourth configuration upon absorption of energy and sized substantially the same as the first spacer in the second configuration.

87. (New) The system of claim 85 wherein the second spacer expands to a fourth configuration upon absorption of energy and sized differently than the first spacer in the second configuration.

88. (New) The system of claim 80 wherein the first spacer is a mirror image of the second spacer.

89. (New) A method of orthopedic treatment comprising:

preparing a disc space between adjacent vertebrae to receive a spacer;

implanting a spacer into the disc space, said spacer comprising a body composed of a shape memory polymeric material and comprising peripheral sidewall, said body provided in a first configuration sized to overlay a first portion of a vertebral endplate;

applying energy to the spacer whereby said body expands to a second configuration sized to overlay a second portion of the vertebral endplate, said second portion having a greater area than the first portion.

90. (New) The method of claim 89 wherein said implanting comprises implanting the spacer using minimally invasive surgical techniques.

91. (New) The method of claim 90 wherein said implanting comprises implanting the spacer through a guide tube.

92. (New) The method of claim 89 wherein said applying energy to the spacer comprises heating the spacer after implantation.

93. (New) The method of claim 89 wherein the spacer in the second configuration expands to cover substantially the entire endplate.

94. (New ) The method of claim 93 wherein the spacer mating conforms to the endplates of the adjacent vertebrae.

95. (New) The method of claim 89 wherein the spacer includes an internal cavity for receipt of an osteogenic material.

96. (New) The method of claim 95 comprising depositing the osteogenic material in the internal cavity after implanting the spacer.

97. (New) The method of claim 95 comprising depositing the osteogenic material in the internal cavity prior to implanting the spacer

98. (New) The method of claim 94 wherein said depositing comprises depositing the osteogenic material about the spacer after implantation.

99. (New) The method of claim 89 wherein the spacer in the second configuration expands to cover a portion of endplate.

100. (New) The method of claim 89 comprising implanting a second spacer into the disc space.

101. (New) The method of claim 100 wherein the second spacer is sized differently from the first spacer.

102. (New) The method of claim 100 wherein the second spacer is composed of a shape memory polymeric material different from that of the first spacer.

103. (New) The method of claim 100 wherein the second spacer is a mirror image of the first spacer.